10/583961

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



| 1871 | 1871 | 1874 | 1874 | 1874 | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 | 187

(43) International Publication Date 7 July 2005 (07.07.2005)

PCT

(10) International Publication Number WO 2005/062113 A1

(51) International Patent Classification7:

G02F 1/365

(21) International Application Number:

PCT/EP2004/053653

(22) International Filing Date:

22 December 2004 (22.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0329629.0

22 December 2003 (22.12.2003) GH

(71) Applicant (for all designated States except US): KO-HERAS A/S [DK/DK]; Blokken 84, DK-3460 Birkerød (DK).

(72) Inventor; and

- (75) Inventor/Applicant (for US only): WADSWORTH, William [GB/GB]; c/o University of Bath, Claverton Down, Bath, Bath and South East Somerset BA2 7AY (GB).
- (74) Agent: HEGNER, Anette; NKT Research & Innovation A/S, Group IP, Blokken 84, DK-3460 Birkerød (DK).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

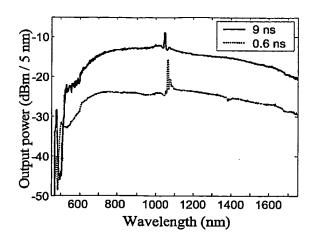
of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A BROAD SPECTRUM LIGHT SOURCE



analysis of chemical and biological samples.

(57) Abstract: The invention relates to the field of light sources and in particular to sources of light of wavelengths extending across a broad spectrum of hundreds of nanometres. An object of the invention is to provide a relatively compact and inexpensive source of light of wavelengths spread over a broad spectrum. The light source comprises a laser (4), which operates at or near its fundamental wavelength and produces pulses of a duration longer than 0.5 ns, and a micro-structured optical fibre. (9) arranged to guide the pulses, wherein the light is generated by the pulses in the fibre (9) . . The invention further relates to a method of generating a light of a spectrum. The invention may e.g. be useful in applications such as spectral testing of fibre components and spectral





